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September 1998



message from

Jack Craig

Secretary Richardson sets priorities for Department

In an address to Department of Energy employees in Washington, D.C., and sent via satellite to field offices across the country, newly confirmed Secretary Bill Richardson outlined his vision for the next two years.

Richardson, U.S. Ambassador to the United Nations and a former seven-term congressman from New Mexico,

is well versed in the energy production and waste disposal arenas. One of the department's largest facilities, Los Alamos National Laboratory, is in the secretary's home state. Richardson has vowed to be accessible to employees as well as stakeholders. In fact, he spent most of the first day on the job walking the halls and shaking hands.

In addition to accessibility, Secretary Richardson has pledged to improve communication between the department and stakeholders. He plans to hold town meetings to discuss issues surrounding cleanup sites like Fernald as well as with cities facing issues associated with the production of energy. In these meetings he wants to make the mission of the department clear. The better the public understands the work and services our department provides to taxpayers, the more likely they will be to support our mission.

Secretary Richardson also plans to visit each DOE site to see the work firsthand. At this time we have not established the date he will come to Ohio, but we will certainly make that known once it's set.

Besides improving relationships with the department's stakeholders, the Secretary feels that we can do a better job of building relationships with our contractors. Clearly the way we operate has changed dramatically in the last 10 years. We have raised the bar under which contractors operate. We want to attract the best companies to work at sites like Fernald, however we need to make sure that bureaucracy does not stifle the efficiency of the task at hand.

In closing, Secretary Richardson referred to the president's inauguration speech. "There is nothing wrong with the Department of Energy that can't be fixed by what's right with the Department of Energy," said Richardson. Through teamwork we will move forward to reach the cleanup goals of the department as we enter a new millennium.



Jack Craig
Director, DOE-Fernald

On the Cover: Workers prepare to pour concrete footers in the facility that will treat waste stored in the pits (6944D-0030).

Sewage Treatment Plant Complete

Decontamination and dismantlement (D&D) of the Sewage Treatment Plant is complete. Fluor Daniel Fernald's site support services contractor, Wise Construction, finished the project one month early and approximately \$300,000 under the original baseline estimate. "This is a great example of what can be accomplished with team work," said Mike Stevens, the Fluor Daniel Fernald project manager. "No matter what obstacles were encountered, we worked together to come up with innovative solutions." Obstacles included discovering sludge in a digester tank and brick contaminated with Technetium-99 that needed to be packaged for shipment off site.

"The Sewage Treatment Plant was directly in the footprint of the On-Site Disposal Facility so we needed to clear the way for that work," explained John Trygier, the DOE-Fernald team leader responsible for overseeing D&D activities at the site. "Accomplishing this task ahead of schedule gives the team working on the cell some flexibility and allows us to move forward with cleaning up the site at an accelerated pace."

Left: Employees removed the existing equipment from the Sewage Treatment Plant before dismantling the building (6620D-168).



3 million and counting

Whether you're talking about lottery jackpots or safe work hours, 3 million is a lot. It's also true that more is even better, and that's exactly what the employees of Fluor Daniel Fernald are striving to achieve. "I'm really proud of our safe work record," said Randall Weiser, a hazardous waste worker in Safe Shutdown. "I like knowing that the work I do is contributing to the cleanup and to the continuation of the record. I want to see it keep going."

Accumulating such an impressive safe work record is truly a team effort. Alone, a team member would have to work 24 hours a day for more than 342 years to reach 3 million safe work hours. Together, it has taken employees about nine months. "Our near-term goal is to achieve 3.9 million safe work hours in 1998," said Tony Renk, Fluor Daniel Fernald's director of Health and Safety. "Our ultimate goal is to continue the record through project completion."



Above: The removal of holdup material from the interior of former process equipment is one of the many projects Fluor Daniel Fernald employees performed safely within the last nine months (6620D-119).

Cleanup **Progress** Update



Above: Construction begins on a waste treatment facility which will be used to process 700,000 cubic yards of material (6944D-0020).

Right: Operators carefully position construction debris and other material into Cell 1 according to well-defined placement procedures (6319D-1492).

Far right: A density gauge is used to check the compaction of flyash and other material placed in the OSDF (6319D-1478).



Waste Pits Remedial Action Project (WPRAP)

- IT Corporation initiated treatment facility construction
- Began safety enhancements to Locomotive Maintenance Building
- Received first shipment of DOE-procured gondola railcars

On-Site Disposal Facility (OSDF)

- Completed preparation of Clay Borrow Area (located east of Fernald Site South Access Road)
- Continued construction of Cell 2 compacted clay liner
- Continued placing waste in Cell 1
- Finished Cell 3 excavation



Facilities Closure & Demolition Project (FC&DP)

Safe Shutdown

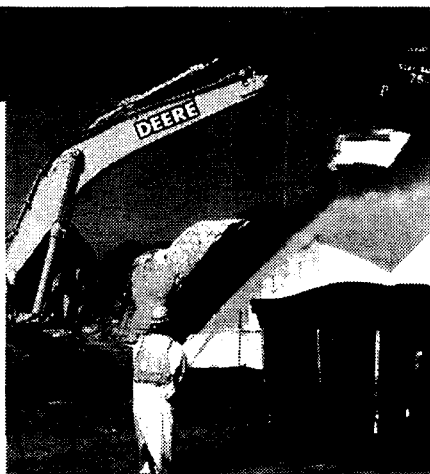
- Plant 2 — Continued asbestos, biohazard and holdup material removal
- Plant 6 — Continued asbestos and holdup material removal
- Non-Nuclear Facilities — Performed various utility disconnects; continued removal of equipment from Tank Farm Complex

Decontamination & Dismantlement

- Boiler Plant/Water Plant —
 - ◆ Continued cutting up remainder of structural steel, coal burner and boilers
 - ◆ Packaged steel for transfer to On-Site Disposal Facility
- Thorium/Plant 9 Complex —
 - ◆ Completed dismantling of Building 9F
 - ◆ Continued interior transite removal and interior/exterior dismantlement activities
 - ◆ Completed floor scabbling in various areas of Plant 9
- Sewage Treatment Plant Complex —
 - ◆ Completed D&D activities
 - ◆ Completed contractor demobilization
 - ◆ Began preparing Project Closeout Report
- Miscellaneous Small Structures —
 - ◆ Completed D&D of Building 38
- Recycling Supplemental Environmental Projects —
 - ◆ Decontaminated/free-released total of 110 tons of rail as of August 31, 1998
 - ◆ Shipped 96 tons of shredded copper to recycling vendor for survey and free release

Silos Project

- Reviewed draft work plans and *Quality Assurance/Quality Control Plan* from Silos 1 and 2 Proof-of-Principle Testing contractors
- Evaluated technical proposals for remediation of Silo 3 material; identified potential contractors
- Continued retrieval of material from Silo 3 for treatability testing; shipped samples to potential contractors
- Received proposals for disposition of waste and debris which will result from Vitrification Pilot Plant closure



Left: A shear topples the old Sewage Treatment Plant making way for continued expansion of the On-Site Disposal Facility (6620D-0205).



Below left: Inside Plant 2/3 Hazardous Waste Workers remove holdup material from a bucket elevator (6383D-0477).



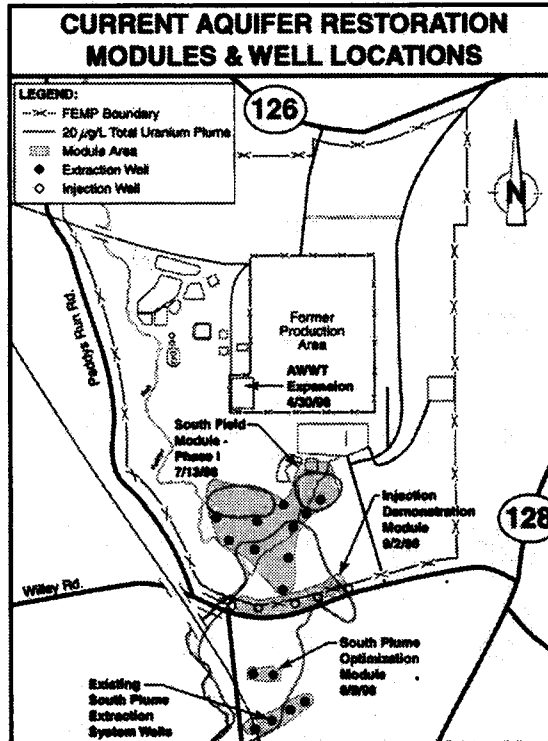
Below: During a recent emergency response exercise in the Silos Project, Emergency Response Team member Mike McCreary (left) relays information to the Communications Center as Brian Hummeldorf (right) looks on. (6948D-0007).

Cleanup **Progress** Update

Top:
In August, extracted groundwater was treated at a rate of 2600 gallons-per-minute which is roughly enough water to fill your average above-ground pool every 30 seconds (5261.5F).

Center:
Pockets of debris exceeding OSDF Waste Acceptance Criteria specifications are carefully identified and documented using Global Positioning System equipment (6734D-0669)

Bottom:
Waste Acceptance Organization personnel have set aside debris that exceeds OSDF background levels for radiation or size requirements. This waste will be packaged and shipped to the Nevada Test Site (6734D-0684).



Aquifer Restoration & Wastewater Project

- Successfully completed Standard Startup Review for South Plume Optimization Module and began operations on August 9, 1998
- Completed System Operability Testing for Injection Demonstration Module on August 28, 1998
- Initiated Standard Startup Review for Injection Demonstration Module on August 31, 1998

Soil Characterization & Excavation Project

- Continued excavation of Inactive Flyash Pile and other areas within Southern Waste Units
- Received approval of Certification Report for Area 8 Phase I (13-acre tract located on Fernald property west of Paddys Run) from regulatory agencies; area is now certified clean
- Natural Resource Restoration
 - ◆ Completed design of Public Access Habitat Area and certified drawings for construction
 - ◆ Received Phase I Wetland Mitigation Conceptual Design from subcontractor

Waste Management Project

- **Neutralization/Precipitation/Deactivation/Stabilization Project** — Treated 176 drums of waste materials in August, bringing project total to 1,209 drums
- **Low Level Waste Shipping** — Received draft report from NTS Radioactive Waste Acceptance Program Team outlining results of Fernald's Waste Management Program audit performed in July 1998; nine of ten corrective actions are closed
- **Nuclear Materials Disposition Operations** — Received memorandum from Oak Ridge site expressing interest in disposition or interim storage of selected Fernald nuclear materials
- **T-Hopper Repackaging System** — Repackaged all 131 T-Hoppers as of Sept. 1, 1998; project is complete



Above:
Radiation Technician Dawn Loebker monitors the bottom of a Lab Pack. Heritage Environmental Services of Indianapolis, Ind. has a contract to package, transport, treat, and dispose of specified unused chemicals (6926D-0013).

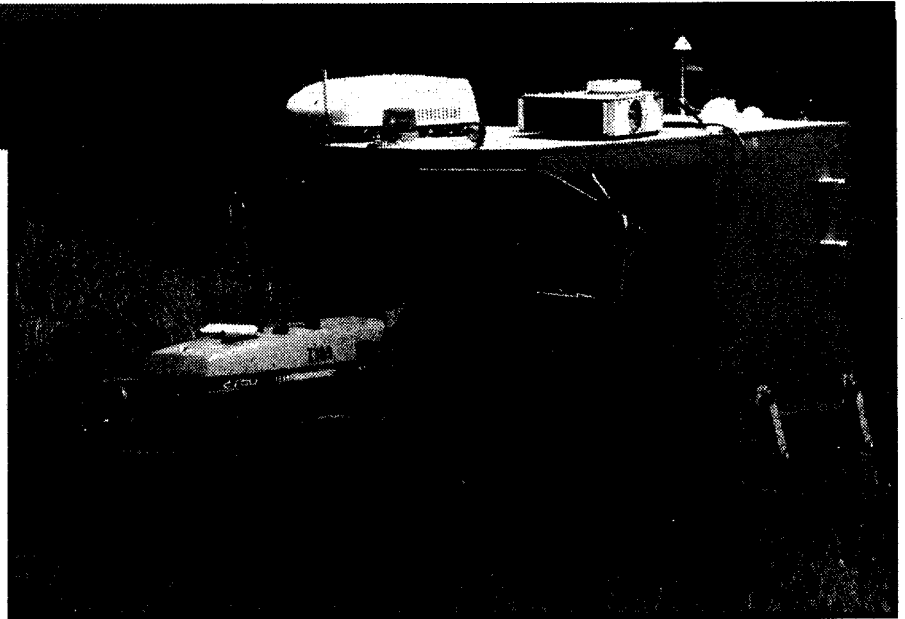


Left:
Building parts are segmented to meet Waste Acceptance Criteria guidelines and then placed into roll-off containers destined for the OSDF (6949D-0002).

Soil excavation benefits from real-time mapping

As part of a continuing effort between DOE's Office of Science and Technology (EM-50) and Fernald's Technology Programs, the site is deploying real-time mapping of field analytical data. Compared to mapping of conventional, laboratory analytical data, real-time mapping is nearly instantaneous. There is no longer a two-to-three day wait. Data is analyzed and mapped in approximately 20-30 minutes, reducing construction down time and saving money.

Real-time mapping is currently used to facilitate excavation work in the South Field and Soil Pile 5. Field personnel monitor gamma rays emitted from undisturbed (in situ) soil and transmit the information via wireless radio to a computer in a nearby mapping van. The computer, outfitted with innovative new software along with gamma spectrometry processing software, processes and displays data in real time. From this information field maps are generated of the monitored area. Color-coded dots on the screen are plotted to show various concentration levels of contaminant radionuclides. Managers then make decisions so excavation activities can quickly resume.



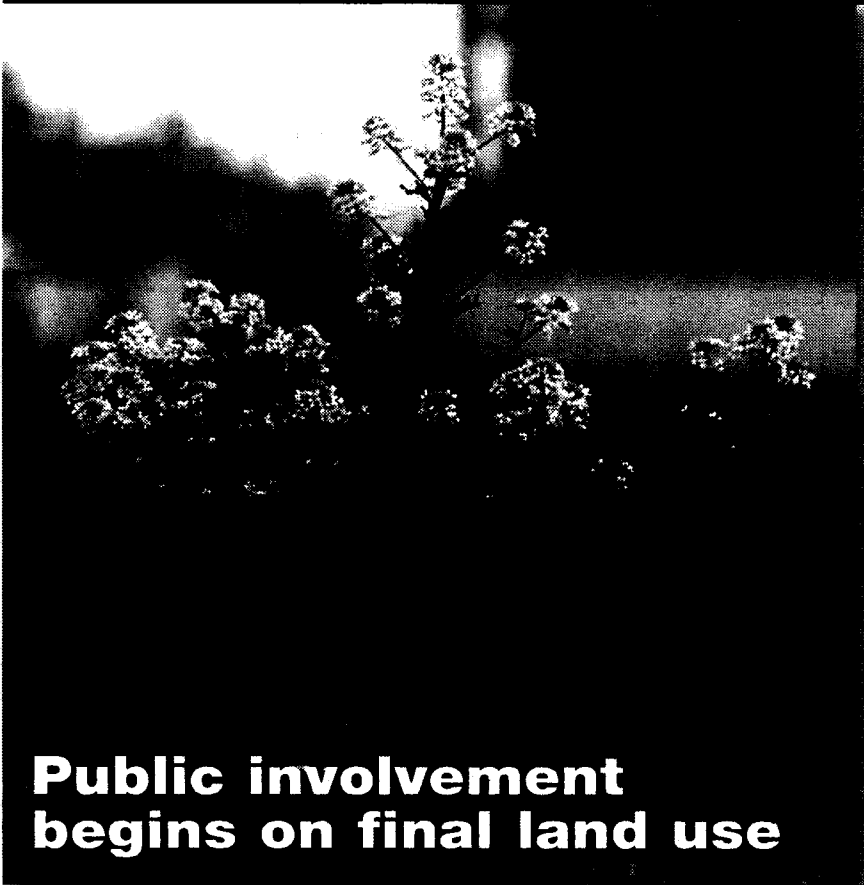
Above: Real-time mapping relies on equipment like the mobile radiation tracking system, or RTRAK to detect the location and concentration of radionuclides in the soil (6874D-066).



Silo 3 bidders will test samples

After spending weeks evaluating proposals received in response to the *Silo 3 Request for Proposal*, DOE and Fluor Daniel Fernald have narrowed the competition to contractors who offer the best technical approach to remediate Silo 3. These contractors have been provided 30-gallon samples of material retrieved from Silo 3 as part of the Small-Scale Waste Retrieval Project so they can test their proposed treatment process to ensure its effectiveness. The contractors will verbally present their findings to Fluor Daniel Fernald during the week of Oct. 4, 1998 and final proposals, including cost information, are due by Oct. 23, 1998.

Left: Requirements for potential contractors to safely retrieve and stabilize/solidify the material in Silo 3 were defined in the Silo 3 Request for Proposal, which was issued in May 1998. The contractors who qualified for the short list were notified on Aug. 14, 1998 (6941-045).



Public involvement begins on final land use

During the next couple of months, stakeholders will have several opportunities to learn about and comment on the path forward for final land use of the Fernald property:

September 21 30-day Public Comment Period begins on the *Environmental Assessment (EA) for Proposed Final Land Use* and on the *Natural Resource Restoration Plan (NRRP)*. Both documents are available by calling 513-648-7480.

September 23 Natural Resource Trustees will hold a public workshop at the Alpha Building, 10967 Hamilton-Cleves Highway at 6:30 p.m. to discuss the *Natural Resource Restoration Plan*. DOE will provide an introduction with a discussion of the public involvement process and the EA.

October 13 Public Hearing on final land use will follow the monthly Cleanup Progress Briefing (about 7:30 p.m.).

October 20 30-day Public Comment Period ends on the EA and the NRRP

Left: The Fernald site is home to the Sloane's Crayfish which is on the state threatened species list and a good habitat for the Indiana Bat which is on the federal list (6887D-031).

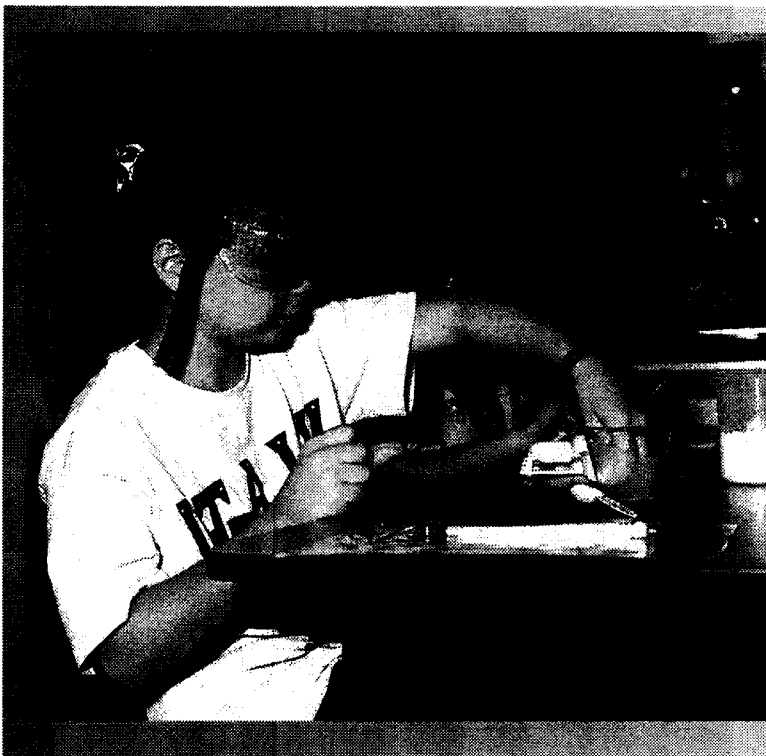
Nevada Surveillance Team notes improvement

A team of representatives from the Nevada Test Site (NTS) has recognized DOE and Fluor Daniel Fernald for making several improvements (corrective actions) to Fernald's Waste Shipping Program. In a report issued on August 31, the NTS team verified that nine out of ten corrective actions identified as a result of an assessment conducted in October 1997 and following the December 1997 Kingman, Ariz. incident have successfully been addressed. Notable improvements to Fernald's Waste Shipping Program include: better records management; improved procedures for documenting information; better reporting requirements; and the implementation of a new process for procuring containers.

The NTS team identified the need for improvement in the areas of measuring and test equipment, two items critical to waste characterization, testing, and packaging. DOE and Fluor Daniel Fernald have already started addressing this issue and will prepare a written response to the NTS surveillance team highlighting actions taken.



Above: The NTS surveillance team conducted an assessment of Fernald's low-level waste shipping program in late July. This fall, they will return to the site to verify all corrective actions have been implemented before shipments resume to NTS (6943-D0015).



STEPS toward better science education

The results are in and the trend is definitely encouraging. Science proficiency scores are on the rise in neighboring schools. The Successful Teaming for Education Partnerships in Science (STEPS) Program, now in its second year, partners Fernald resources with Ross and Southwest Local School Districts to promote science skills and higher proficiency scores and it seems to be working.

In addition to funds totaling \$50,000 for science and technology-related equipment, volunteers have been in the classroom doing hands-on activities; students have enjoyed interesting field trips; and teachers have attended a variety of workshops. It seems to be a successful formula. When industry, educators and the community work together, the students come out winners. That's a step in the right direction.

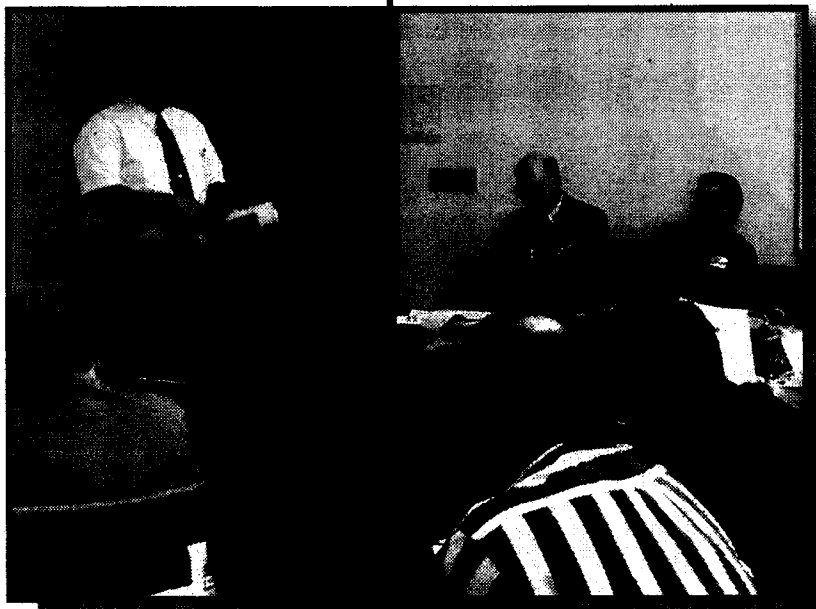
Left: Harrison Elementary School students raised their science proficiency test scores 19 percent in one year. Here students are making "slime" in the school's science lab (6752-12).

CRO accepts applications for Entrepreneurial Assistance Program

The Fernald Community Reuse Organization (CRO) is currently accepting applications for Accelerated Development of Entrepreneurs Program and Technique (Project ADEPT) for Fernald workers or local residents who are interested in starting up a new business, or who own a small business but need specialized services from business management experts.

The purpose of Project ADEPT is to create new business opportunities for Fernald workers as they complete their employment at the site, explained Curt Paddock, CRO economic development consultant. "Many new businesses fail in the first couple of years," Paddock said. "Project ADEPT will offer specialized consulting services to help entrepreneurs get over the hurdles and challenges of starting up a new business. The hope is the businesses will employ displaced Fernald workers."

The program is funded by a \$50,000 grant from the Ohio Department of Development. To be eligible, companies must be located in Ohio, owned by a current or former employee, or be an existing or start-up company with no more than 50 employees. "The CRO will work closely with a network of regional Small Business Development Centers to link the needs of the entrepreneur with the appropriate expertise," Paddock said. Some of the services include: business planning, marketing research, accounting and legal advice. To apply, contact Curt Paddock, 513-527-3150.



Above: David McWilliams, Community Reuse Organization chair, explains the CRO's mission at a Cleanup Progress Briefing held earlier this summer (6904D-0017).

Recent Tours

On August 17, the Ross Township Trustees returned to Fernald for their annual site tour. The visit was arranged by Larry Stebbins, the Fernald Envoy to the trustees. Several envoys have arranged site tours for their designated groups or organizations. The trustees said they appreciate being kept informed of all the cleanup progress.

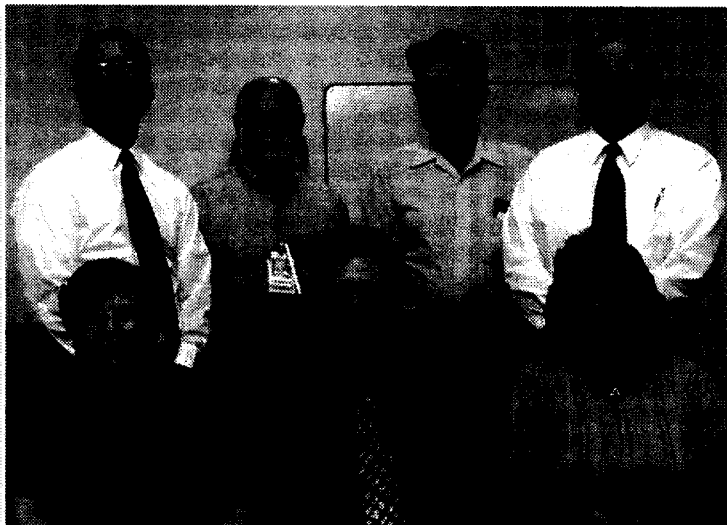
Right: Johnny Reising, DOE associate director, shows the updated land use map to trustees Tom Willsey and Ray Wurzelbacher (6810-D0123).



The Department of Energy Analytical Managers' mission is to facilitate improvements in the analytical chemistry operations within the DOE complex. They have met at various DOE sites every year since 1983, with Fernald hosting this year's meeting. Amy Meyer, manager of the Fernald lab, coordinated the 3-day event (6810-D0124).

Some members of the Harrison Kiwanis had never been to Fernald even though they live or work nearby.

Right: The tour for the Harrison Kiwanis was arranged by Dennis Cook, (back row, second from left) Fernald Envoy to the group (6810-D0125).



New documents added to the Public Environmental Information Center

The following information was recently added to the Public Reading Room, Administrative Record files and Post Record of Decision files at DOE's Public Environmental Information Center (PEIC):

■ Waste Pits Remedial Action Project

- ◆ Draft Final Waste Pits Remedial Action Project Remedial Design Package
- ◆ Transportation and Disposal Plan; July 1998

■ On-Site Disposal Facility and Soil Characterization & Excavation Project

- ◆ Draft Project Specific Plan for the On-Site Disposal Facility Waste Acceptance Criteria Attainment Sampling of Area 7 Soils
- ◆ Sitewide Excavation Plan - Volumes 1 and 2
- ◆ Area 2, Phase I Southern Waste Units Implementation Plan
- ◆ Proposed Milestones for the On-Site Disposal Facility with conditional approval from regulators

■ Facilities Closure and Demolition Project

- ◆ Final Operable Unit 3 Maintenance/Tank Farm Complex Implementation Plan

■ Silos Project

- ◆ Silos Project Infrastructure Document 1

■ Miscellaneous

- ◆ Draft Final Natural Resource Impact Assessment and Natural Resource Restoration Plan
- ◆ Integrated Site Environmental Report Comments from U.S. EPA and Ohio EPA



Fernald Report

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